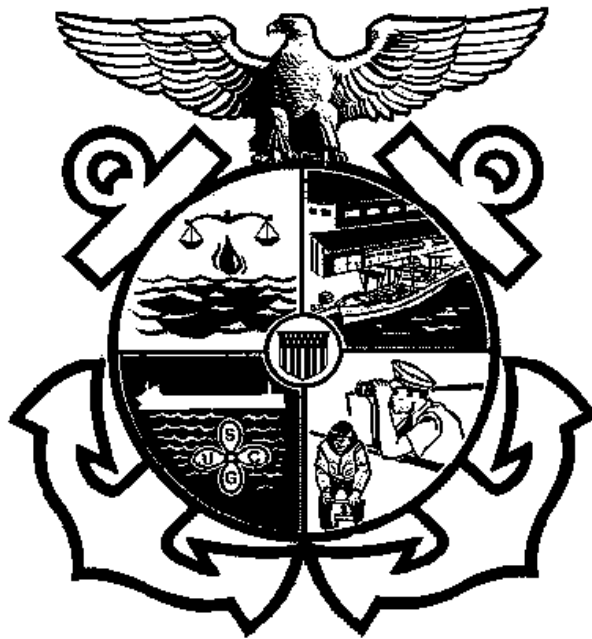

Barge Inspector (BI)



PQS Workbook

BI Qualification Task Matrix

| TSK # | TASK | DATE |
|--------------|---|-------------|
| AC01 | Inspect berthing accommodations. | |
| AC04 | Inspect mess deck spaces. | |
| AC06 | Inspect areas where washers and dryers are installed. | |
| AC07 | Inspect paint lockers. | |
| AC08 | Inspect ladders, railways, and gangways. | |
| AC10 | Inspect heating and cooking equipment. | |
| CS02 | Inspect bulk liquid cargo system. | |
| CS04 | Inspect components installed in designated hazardous locations. | |
| CS08 | Inspect cargo pumproom(s). | |
| CS09 | Test and inspect the emergency shutdown station(s). | |
| CS10 | Inspect cargo tank vents. | |
| CS11 | Inspect closed gauging systems. | |
| CS26 | Inspect the cargo transfer hoses for condition and required markings. | |
| DD01 | Ensure that the vessel's entire underwater body is clean for examination. | |
| DD02 | Determine whether structural configuration match approved plans. | |
| DD06 | Examine steel hull for damage and defects. | |
| DD10 | Examine critical joint areas. | |
| DD11 | Examine draft marks. | |
| DD12 | Examine load line. | |
| DD13 | Examine drydock plugs for local wastage and proper fit. | |
| DD22 | Examine anchor chains. | |
| DD23 | Complete applicable structural failure reports and obtain CG-2692. | |
| DD24 | Examine freeing ports and scuppers. | |
| DD27 | Examine thruster (bow or stern) and thruster tunnel. | |
| DD29 | Conduct inspection of internal spaces and structures. | |
| DD31 | Evaluate repair proposals and inspect completed repairs. | |
| EE01 | Inspect fireman's outfit(s). | |
| EE09 | Inspect pyrotechnics. | |
| ES01 | Inspect switchboards. | |

BI Qualification Task Matrix

| TSK # | TASK | DATE |
|--------------|---|-------------|
| ES02 | Inspect ship's service generators. | |
| ES04 | Inspect emergency generators. | |
| ES05 | Inspect battery installation. | |
| ES06 | Inspect motor controllers. | |
| ES07 | Ensure lighting systems/fixtures are adequate and meet requirements. | |
| ES09 | Ensure receptacle outlets are properly grounded. | |
| ES10 | Inspect distribution panels. | |
| ES12 | Survey/inspect electrical cable installation. | |
| ES14 | Test/inspect internal communication and control systems. | |
| ES16 | Inspect components installed in designated hazardous locations. | |
| ES18 | Inspect the general alarm system emergency batteries. | |
| ES19 | Perform operational test of remote ventilation shutdowns. | |
| FF01 | Determine amount, type, location of fire protection equipment required. | |
| FF05 | Inspect CO2 systems on a barge. | |
| FF08 | Inspect semi-portable firefighting equipment. | |
| FF09 | Inspect portable firefighting equipment. | |
| FF13 | Witness operational test of fire detection system. | |
| FP03 | Verify that required forms, placards and notices are posted on a barge. | |
| GT03 | Examine ground tackle and related equipment on a barge. | |
| II04 | Review vessel documents and papers on a barge. | |
| II05 | Discuss scope of inspection with owner's representative. | |
| II06 | Obtain CG-2692 for reportable marine casualties. | |
| II07 | Examine gas-free certificate. | |
| II08 | Review hull gaugings and compare with original scantlings. | |
| II09 | Review any outstanding CG-835s and ask if other deficiencies exist. | |
| LS02 | Determine amount/type of lifesaving equipment required on a barge. | |
| LS05 | Inspect life preservers. | |
| LS06 | Inspect ring buoys. | |
| LS16 | Inspect inflatable liferaft installations. | |

BI Qualification Task Matrix

| TSK # | TASK | DATE |
|--------------|--|-------------|
| MI04 | Inspect fuel oil service and transfer system. | |
| MI06 | Inspect bilge pumps installation, piping, and valves. | |
| MI09 | Examine potable water system. | |
| MI12 | Observe operational tests of machinery on a barge. | |
| MI15 | Inspect the diesel installation and assembly on a barge. | |
| MI16 | Inspect air starting systems. | |
| MI17 | Inspect hydraulic starting systems. | |
| MI18 | Inspect electric starting systems. | |
| MI22 | Internally examine UPVs requiring internal examination. | |
| MI23 | Externally examine UPVs. | |
| MI24 | Hydrostatically test UPVs requiring hydrostatic testing. | |
| MI25 | Ensure all UPVs are properly equipped with pressure relief valves. | |
| MI26 | Witness pressure relief valve test. | |
| MI39 | Inspect thermal fluid heater. | |
| NS08 | Inspect navigation and signal lights on a barge. | |
| NT01 | Approve NDT method for specific applications. | |
| NT02 | Check certification of NDT technician. | |
| NT03 | Witness NDT in accordance with applicable standards. | |
| NT04 | Evaluate NDT results. | |
| PP02 | Inspect pollution prevention equipment on a barge. | |
| PP04 | Conduct IOPP boarding and survey. | |
| PP05 | Verify MARPOL V compliance. | |
| RT01 | Complete Initial Indoctrination Lesson Plan Series (IILPS). | |
| RT02 | Complete Inspection Department Course. | |
| VS01 | Inspect ventilation system in pumproom(s). | |
| VS02 | Inspect vents to voids, ballast, and portable water tanks. | |
| VS03 | Examine deck openings and vents. | |
| WI01 | Inspect watertight doors. | |
| WI03 | Inspect watertight bulkhead penetrations. | |

BI Qualification Task Matrix

| TSK # | TASK | DATE |
|-------|---|------|
| WI07 | Inspect hull and deck openings. | |
| WI09 | Inspect port light covers. | |
| WR01 | Evaluate welding repair proposal. | |
| WR02 | Complete initial visual inspection of weld repair. | |
| WR03 | Complete intermediate visual inspection of weld repair. | |
| WR04 | Complete final visual inspection of weld repair. | |
| WR05 | Witness pressure testing of welded repairs. | |

Trainee's OJT Manual has been reviewed and I recommend a training qualification board be scheduled.

Training Officer: _____

Date: _____

Date Qualification Board Completed: _____

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|--|---------------------------|------------------------------|
| AC01 | Inspect berthing accommodations. <ul style="list-style-type: none"> • Spaces provided of size required by regulations • Appropriate number of berths provided • Proper seating available for PAX's on vessels whose voyages are limited by certificate of inspection to set time periods • Lockers of proper size provided for each berth • Screens provided for ventilation ports on non-air conditioned vessels • Mechanical ventilation/air-conditioning systems operating properly • Adequate number of toilets and washrooms provided for number of persons in crew specified on certificate of inspection, kept in good repair and in a sanitary condition • Lights provided for each berth • Hot water heating piping within the space properly lagged • Electrical hazards • Two means of escape provided from each berthing space and other areas where personnel would normally be employed | _____ | _____ |
| AC04 | Inspect mess deck spaces. <ul style="list-style-type: none"> • Reasonable sanitation standards are evident • No excessive grease buildup has accumulated in the grill area and in the grill vent • Chill boxes are operable and reasonably clean • Escape latches or alarm systems on the chill boxes are functioning properly | _____ | _____ |
| AC06 | Inspect areas where washers and dryers are installed. <ul style="list-style-type: none"> • Dryer unit is properly vented and no fire hazard due to lint buildup exists • "Jury-rigged wiring" systems for units are employed • Units securely mounted | _____ | _____ |
| AC07 | Inspect paint lockers. <ul style="list-style-type: none"> • Required fire protection equipment provided in accordance with applicable regulations and vessel's approved fire safety plan • Space(s) designated constructed of or wholly lined with metal • Space(s) well vented and means provided to secure ventilation if necessary | _____ | _____ |
| AC08 | Inspect ladders, rails and gangways. <ul style="list-style-type: none"> • An approved pilot ladder provided and maintained in good repair • Accommodation ladder of sufficient size provided to be used when distance from sea level to vessel's deck is more than 30 feet | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|---|---------------------------|------------------------------|
| | <ul style="list-style-type: none"> • “Rails” are provided on accommodation ladders, when used | | |
| AC10 | Inspect heating and cooking equipment. <ul style="list-style-type: none"> • Thermal cutouts for electric space heaters • Grab rails for electric ranges • LPG/CNG installed in accordance with regulations | _____ | _____ |
| CS02 | Inspect bulk liquid cargo system. <ul style="list-style-type: none"> • Pumprooms and/or pumping equipment: <ul style="list-style-type: none"> – Lighting fixtures and all electrical equipment are explosion proof – No dead ended, loose or frayed cabling – No jury-rigged wiring, extension cords, etc. – Bulkheads gas tight – Ladders – Ventilation system complete and operating – Pumps and controls operational – No leaking seals – Mechanical and electrical remote operating devices attached and operational • Cargo piping: <ul style="list-style-type: none"> – Piping – Valves – Fittings – Gaskets – Supports – Materiel condition of all components – Expansion joints • Gauging and venting system: <ul style="list-style-type: none"> – Type of gauging (open, closed, restricted) – Gauging type approved for cargo carried – Gauging systems operational – High and low level alarms – Overfill controls – Condition of vent piping and vent masts – Vent outlets at proper height – Required valves installed and operational – Pressure relief valves tested and certified - no signs of tampering – Pressure vacuum valves and headers free of corrosion or dirt – Flame screens installed and acceptable • Vapor recovery system | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|---|---------------------------|------------------------------|
| CS02 (cont'd.) | <ul style="list-style-type: none"> • Bulk liquid cargo heating system: <ul style="list-style-type: none"> – Indicate which tanks – Separate from hotel services for toxic cargoes – Contamination detection available for toxic cargo – System operational • Bulk liquid cargo inerting system • Operational procedures: <ul style="list-style-type: none"> – Aboard vessel – Procedures in compliance with applicable CFR parts – Transfer system adequately described – Shipping papers/manifest | | |
| CS04 | Inspect components installed in designated hazardous locations. <ul style="list-style-type: none"> • Cable runs inboard and clear of cargo tank openings • Electrical components used in cargo pumproom intrinsically safe • Storage batteries located in cargo handling areas • Lights in pump rooms use gas tight lenses or intrinsically safe units • Electrical components on the weather deck located within ten feet of cargo tank openings, tank vents or doors, explosion proof | _____ | _____ |
| CS08 | Inspect cargo pumproom(s). <ul style="list-style-type: none"> • Pumproom access doors open onto the weatherdeck • Ladders and accesses allow individuals wearing breathing apparatus entry • Hoisting system provided from the pump room to the main decks • Discharge pressure gauge for each pump located outside the pump room • Bilge pumping system with remote control and high level alarms provided • Air changed with proper frequency by the power ventilation system | _____ | _____ |
| CS09 | Test and inspect emergency shutdown station(s). <ul style="list-style-type: none"> • Minimum number of stations • Stations properly located and marked • Means provided to stop cargo pumps and close valves • Pump and valve shutdowns operate in the prescribed time • Valves may be operated manually and fail safe (closed) • Fusible elements correctly installed • Emergency shutdown controls installed at the cargo control | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|--|---------------------------|------------------------------|
| | station | | |
| CS10 | Inspect cargo tank vents. <ul style="list-style-type: none"> • Vent heights adequate and within CFR and IMO requirements • Vents located properly with respect to discharge areas • Drain traps installed • PV valves set to lift at proper pressure | _____ | _____ |
| CS11 | Inspect closed gauging systems. <ul style="list-style-type: none"> • High level alarms provided • High level alarms have audible and visual indicators at the cargo control station • Alarm level set within the limits proscribed by IMO or CFRs | _____ | _____ |
| CS26 | Inspect the cargo transfer hoses for condition and required markings. | _____ | _____ |
| DD01 | Ensure that the vessel's entire underwater body is clean and exposed for examination (areas in way of blocking excluded). | _____ | _____ |
| DD02 | Determine whether structural configurations match approved plans. | _____ | _____ |
| DD06 | Examine steel hull for damage and defects. | _____ | _____ |
| DD10 | Examine critical joint areas. <ul style="list-style-type: none"> • Sheer strake • Stringer plate | _____ | _____ |
| DD11 | Examine draft marks (placement of marks consistent with stability letter and properly scribed). | _____ | _____ |
| DD12 | Examine load lines (placement of marks consistent with load line certificate and properly scribed). | _____ | _____ |
| DD13 | Examine drydock plugs for local wastage and fit. | _____ | _____ |
| DD22 | Examine anchor chains and determine if links are distorted or deteriorated excessively. | _____ | _____ |
| DD23 | Complete applicable structural failure reports and obtain | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|--|---------------------------|------------------------------|
| | CG-2692 for reportable marine casualties. | | |
| DD24 | Examine freeing ports and scuppers. | _____ | _____ |
| DD27 | Examine thruster (bow or stern) and thruster tunnel. <ul style="list-style-type: none"> • Deterioration and cracks • Erosion of welds • Shaft seal or packing gland leakage | _____ | _____ |
| DD29 | Conduct inspection of internal spaces and structures for fractured welds, fractured structural members, coating failure, deterioration, and buckled or distorted structure. <ul style="list-style-type: none"> • Deck beams, underdeck longitudinals, deck girders • Side and bottom longitudinals • Center vertical keel and keelsons • Frames, stiffeners, and brackets • Hatch covers | _____ | _____ |
| DD31 | Evaluate repair proposals and inspect completed repairs. <ul style="list-style-type: none"> • Sketch and bill of materials • Materials and welding details same as original • Inserts properly made • Fit up and joint preparation • Back gouging • Weld sequencing • Visual inspection of completed repair • Pressure test repairs (hose, air, hydro) | _____ | _____ |
| EE01 | Inspect fireman's outfit(s). <ul style="list-style-type: none"> • Proper number aboard vessel • Outfits correctly stowed • Describe what constitutes a fireman's outfit • What spare equipment is required • Location(s) of fireman's outfits listed on fire safety plan • Location(s) marked in accordance with applicable regulations • Steps been taken to thwart pilfering and do they deny legitimate access to equipment • Communications system to the bridge necessary | _____ | _____ |
| EE09 | Inspect pyrotechnics. <ul style="list-style-type: none"> • Proper type equipment provided for vessel being inspected • Equipment provided within time limits for service life • Equipment properly stowed • Persons in charge of lifeboats knowledgeable in use of equipment | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|---|---------------------------|------------------------------|
| ES01 | Inspect switchboards. <ul style="list-style-type: none"> • Nonconductive mat on deck in front of board • Nonconductive rails on board face • Nonconductive rails at the rear and sides • Dripshield on the board's top • Ground detection indicators working with no grounds indicated • Meters calibrated and working • Synchronizing controls working. • Identification for controls and meters • Area is dry and clean • Working space is provided in accordance with regulations • Overcurrent protection properly labeled | _____ | _____ |
| ES02 | Inspect ship's service generators. <ul style="list-style-type: none"> • Generators of a size or arrangement which require overspeed trips • Operational test of overspeed trips and alarms within specified limits • If the DC or AC generators operate in parallel, are the reverse power/current trips working • Guards installed around rotating or live machinery • Discoloration from overheating apparent • Filters on air intakes working to keep internals free from dust and dirt • Windings oily or dirty • Odd bearing noises present • Voltage regulated within limits specified by CFR • Working diesel low lube oil pressure trip and alarms • Working high temperature detectors and alarms for AC generators • Nameplates properly in place | _____ | _____ |
| ES04 | Inspect emergency generator. <ul style="list-style-type: none"> • Means of starting is provided • The following alarms/shutdowns are operable: <ul style="list-style-type: none"> – Low lube oil pressure – High cooling water temperature – Overspeed – Fixed firefighting system shutdown • The generator auto-start circuit functions and the generator can power its full-rated load within 20 seconds and accept the final emergency load within 45 seconds of loss of the normal power supply • Independent fuel supply is provided, with remote shut-off valve installed and properly marked | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|---|---------------------------|------------------------------|
| ES05 | Inspect emergency batteries. <ul style="list-style-type: none"> • Size of installation and required ventilation • Battery box is properly lined • Batteries are secure in the trays • Adequate space is provided over the cells • A means of charging is provided • Conductor overcurrent protection is provided • Ventilation/charger interlocked | _____ | _____ |
| ES06 | Inspect motor controllers. <ul style="list-style-type: none"> • Units are installed in suitable cases, or if open type, within limited access enclosure • Wearing parts are accessible • Controls are marked for each motor served • Wiring diagram is affixed to the controller enclosure • Motor controllers are drip-proof/watertight | _____ | _____ |
| ES07 | Ensure lighting systems and fixtures are adequate and meet regulations. <ul style="list-style-type: none"> • Passageways and public areas • Machinery spaces • Passenger and crew spaces • Berth lights • Exit lights • Pilot ladders • Navigation • Signaling lights • Lifeboat and liferaft embarkation stations | _____ | _____ |
| ES09 | Ensure receptacle outlets have grounding poles and are properly grounded. | _____ | _____ |
| ES10 | Inspect distribution panels. <ul style="list-style-type: none"> • Circuit directory provided • Amperage ratings of the protective devices in accordance with required circuit directory • Panelboard blanks installed, where necessary | _____ | _____ |
| ES12 | Survey electrical cable installation and determine: <ul style="list-style-type: none"> • Vertical and horizontal supports properly spaced • Radius of the bends exceed CFR specifications • Portable cables used for unauthorized purposes • Acceptable materials used • Hazardous conditions exist (jury rigs, dead end cables, splices, etc.) | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|---|---------------------------|------------------------------|
| ES14 | Test internal communication and control systems and ensure the following systems work properly. <ul style="list-style-type: none"> • General alarms (bells and contractors) • Sound powered phones to all required stations • Engine order telegraph and wrong direction alarm • Public address system • Engineer's assistance needed alarm • Engineer's call system • Fire detection/fire alarm system • Refrigerated space alarm system | _____ | _____ |
| ES16 | Inspect components installed in designated hazardous locations and ensure explosion proof installation. <ul style="list-style-type: none"> • Fuel purifier rooms • Paint locker • Cargo area • Pumprooms | _____ | _____ |
| ES18 | Inspect the general alarm system emergency batteries. | _____ | _____ |
| ES19 | Inspect ventilation systems and perform operational test of alarms and remote ventilation shutdowns. | _____ | _____ |
| FF01 | Determine amount, type and location of fire protection equipment required. <ul style="list-style-type: none"> • By the vessel's Certificate of Inspection • By the respective regulations | _____ | _____ |
| FF05 | Inspect fixed CO ₂ systems on a barge. <ul style="list-style-type: none"> • Obtain servicing reports • Bottles underweight • Flexible loops serviced and tested • Diffuser heads clear • Access to CO₂ room free of obstruction • Hydrostatic test required by regulations • Instructions posted | _____ | _____ |
| FF08 | Inspect semi-portable fire fighting equipment. <ul style="list-style-type: none"> • Installation approved • System serviceable • Instructions posted • Correct type and amount on hand • Markings correct | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|--|---------------------------|------------------------------|
| FF09 | Inspect portable firefighting equipment. <ul style="list-style-type: none"> • Fire extinguishers approved • Each unit serviceable • Adequate spare charges provided • Correct type and amount on hand • Distributed per fire control plan • Markings correct • Servicing properly logged | _____ | _____ |
| FF13 | Witness operational test of fire detection system. <ul style="list-style-type: none"> • System serviceable • All sensors free of obstructions and functioning • Alarms and indicators functioning correctly • Required instructions and diagrams provided • Markings correct | _____ | _____ |
| FP03 | Verify that the required forms, placards, and notices are posted on a barge. <ul style="list-style-type: none"> • Pollution/MARPOL: <ul style="list-style-type: none"> – Placard – Waste management plan • Coast Guard forms: <ul style="list-style-type: none"> – CG-841: Certificate of Inspection – CG-3372: Oil Pollution • Markings: conspicuous and legible | _____ | _____ |
| GT03 | Verify that ground tackle and related equipment is in satisfactory condition on a barge. <ul style="list-style-type: none"> • Anchors • Chain • Winch and foundations • Anchor chain stoppers • Anchor handling davits | _____ | _____ |
| II04 | Review vessel documents listed in MSIS and VFLD and papers on a barge. | _____ | _____ |
| II05 | Discuss scope of inspection with owner's representative. Decide on general sequence of inspection. | _____ | _____ |
| II06 | Obtain CG-2692 for reportable marine casualties/ structural failure report. | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|--|---------------------------|------------------------------|
| II07 | <p>Examine gas-free certificate issued by an NFPA-certified marine chemist for hot work and/or confined space entry.</p> <ul style="list-style-type: none"> Information on the gas-free certificate meet the requirements of NFPA Standard 306 and Coast Guard confined space entry/benzene exposure policy Gas-free certificate been maintained by a designated competent person and records kept as required by OSHA regulations Marine chemist certified by NFPA Review benzene and confined space entry policies | _____ | _____ |
| II08 | Review hull gaugings and compare with original scantlings. Consider spot gauging by NDT or drilling. | _____ | _____ |
| II09 | Review any MSIS inspection notes and outstanding deficiencies (CG-835s). Ask owner's representative if any other deficiencies exist. | _____ | _____ |
| LS02 | <p>Determine amount and type of lifesaving equipment required on a barge.</p> <ul style="list-style-type: none"> Certificate of Inspection CFRs | _____ | _____ |
| LS05 | <p>Inspect life preservers.</p> <ul style="list-style-type: none"> Properly equipped with lights, whistles and reflective tape Approved for intended service Sufficient serviceable units aboard and properly stowed Properly marked | _____ | _____ |
| LS06 | <p>Inspect ring buoys.</p> <ul style="list-style-type: none"> Approved for intended service Properly colored and marked Correctly equipped with waterlights and line Serviceable Sufficient number of ring buoys are aboard | _____ | _____ |
| LS16 | <p>Inspect inflatable liferaft installations.</p> <ul style="list-style-type: none"> Serviced annually Last servicing date at approved facility Properly secured in the cradle designed for them Hydrostatic releases serviced Alternative means of securing meets criteria promulgated in NVIC 4-86 Suspension test Davit weight test Operating instructions posted at embarkation station | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|---|---------------------------|------------------------------|
| MI04 | Inspect fuel oil service and transfer system. <ul style="list-style-type: none"> • Determine condition of piping and manifolds • Determine condition of fuel oil HP and LP strainers • Ensure fuel oil pump relief pump valves discharge to suction side of fuel oil pumps • Ensure no excessive fuel oil leakage exists • Ensure that spray shields are installed on flanged joints • Witness operation of fuel oil pumps • Ensure instrumentation is operable • Externally examine fuel oil heaters • Test remote operated fuel oil system valves • Determine condition of fuel oil tank vent lines and flame screens | _____ | _____ |
| MI06 | Inspect bilge pumps installation, piping, and valves. <ul style="list-style-type: none"> • System capable of pumping from any watertight compartment except ballast, oil and water tanks • Standing water drains to suction pipes • Bilge manifold has independent bilge suction control and is properly marked • Suction strainers are installed • Emergency bilge suction installed, where required • Instrumentation operable | _____ | _____ |
| MI09 | Examine potable water system. <ul style="list-style-type: none"> • Dedicated tanks; treated or coated • Tanks ventilated with insect screens installed • Water pump(s) and pressurization system operable • Pressure tank installation | _____ | _____ |
| MI12 | Determine what operational tests are required; witness tests and state if results are satisfactory on a barge. <ul style="list-style-type: none"> • Overspeed trips • Low lube oil shutdowns and alarms • High coolant temperature alarm | _____ | _____ |
| MI15 | Inspect the diesel installation and assembly on a barge, paying particular attention to the following: <ul style="list-style-type: none"> • Fuel and lube oil fittings (checking for leakage) • Instrumentation • Guards over rotating machinery • Exhaust system: <ul style="list-style-type: none"> – Leaks – Lagging – Water cooling system • Air intakes | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|--|---------------------------|------------------------------|
| | <ul style="list-style-type: none"> • Crankcase vents (clear) | | |
| MI16 | Inspect air starting systems. <ul style="list-style-type: none"> • Air receivers • Piping • Compressors | _____ | _____ |
| MI17 | Inspect hydraulic starting systems. <ul style="list-style-type: none"> • Pumps and strainers • Piping • Accumulators | _____ | _____ |
| MI18 | Inspect electrical starting systems. | _____ | _____ |
| MI22 | Internally examine unfired pressure vessels requiring internal examination. <ul style="list-style-type: none"> • Check for corrosion, scale, pitting, cracks and erosion • Examine welded connections internally | _____ | _____ |
| MI23 | Externally examine unfired pressure vessels. <ul style="list-style-type: none"> • Pressure gauge • Evidence of structural damage • Data plate legible • Foundations structurally sound • Attachments secure | _____ | _____ |
| MI24 | Hydrostatically test unfired pressure vessels requiring hydrostatic testing. <ul style="list-style-type: none"> • Determine MAWP • Observe pressure test | _____ | _____ |
| MI25 | Ensure all unfired pressure vessels are properly equipped with pressure relief valves in accordance with regulations. | _____ | _____ |
| MI26 | Witness pressure relief valve test. <ul style="list-style-type: none"> • MAWP not exceeded • Valve seats tightly • Capacity not exceeded • Correct valve type • Hand lifting device | _____ | _____ |
| MI39 | Inspect thermal fluid heater. <ul style="list-style-type: none"> • External fittings • Mountings opened or removed if deemed necessary • Hydrostatic test | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|--|---------------------------|------------------------------|
| | <ul style="list-style-type: none"> • Relief valve tested • Automation tested | | |
| NS08 | Inspect navigation and signal lights on a barge. <ul style="list-style-type: none"> • Properly functioning • Correctly placed in accordance with applicable regulations • Certificate of alternative compliance on board • Properly installed battery-operated lights | _____ | _____ |
| NT01 | Approve NDT method for specific applications. | _____ | _____ |
| NT02 | Check the certification of the NDT technician. | _____ | _____ |
| NT03 | Witness NDT in accordance with applicable standards. <ul style="list-style-type: none"> • Dye penetrant • Magnetic particle • Radiography • Ultrasonics | _____ | _____ |
| NT04 | Evaluate NDT results. | _____ | _____ |
| PP02 | Inspect pollution prevention equipment and documentation on a barge. <ul style="list-style-type: none"> • Discharge containment in place and of the proper type and size for cargo, fuel, or lube oil, as needed • Oil discharge prohibition placard • No fuel or dirty oil is carried in a prohibited oil space • Proper documentation for the person(s) assigned to vessel who deal directly with oil transfer to and from vessel • Required transfer procedures are correct, complete, and available to assigned personnel as required • Emergency shutdown system(s) function properly • Adequate communication between participants in transfer operations and sufficient lighting at critical work stations provided where specified by regulation • Required records for tests and inspections of oil transfer hoses and equipment and declarations of inspection available, current, and correct, where required • Scupper plugs available for use during oil transfer operations | _____ | _____ |
| PP04 | Conduct an IOPP boarding and survey, and verify that required equipment is on board and in proper working order. <ul style="list-style-type: none"> • Segregated ballast tanks • Dedicated clean ballast tanks | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|---|---------------------------|------------------------------|
| | <ul style="list-style-type: none"> • Slop tanks • Monitoring equipment | | |
| PP05 | Verify MARPOL V compliance. <ul style="list-style-type: none"> • Check waste management plan • Plastics retained or incinerated • Placards posted | _____ | _____ |
| RT01 | Complete Initial Indoctrination Lesson Plan Series (IILPS). | _____ | _____ |
| RT02 | Complete Inspection Department Course. | _____ | _____ |
| VS01 | Inspect ventilation system in pumproom(s). | _____ | _____ |
| VS02 | Inspect vents to voids, ballast, and portable water tanks. <ul style="list-style-type: none"> • Condition of vent lines • Insect screen provided and in good repair • Means of closure provided and operable | _____ | _____ |
| VS03 | Examine deck openings and vents. <ul style="list-style-type: none"> • Access covers bolted securely • Access cover gaskets in good condition • Vent closures | _____ | _____ |
| WI01 | Inspect watertight doors. <ul style="list-style-type: none"> • Knife edges intact and in good repair; no excessive paint buildup • Gasket material installed in channel is in good condition and not painted • Knife edges and channel meet as designed when door closed • Hinges and hinge bolts in good condition; no sagging of door due to rounded out hinges or worn hinge bolts • Dogs are all operable; grease fittings still usable • Dogging wedges not excessively worn and fit up satisfactory • Quick-closing gear operable and adequate closure achieved • Any port lights installed in watertight doors use wire mesh reinforced glass • Dogging wrench provided in vicinity of watertight door(s) | _____ | _____ |
| WI03 | Inspect watertight bulkhead penetrations. <ul style="list-style-type: none"> • Penetrations properly sealed to maintain watertight integrity through use of devices such as stuffing tubes • Sealant used, if stuffing tubes are employed, is non-flammable product designed for such use and is approved | _____ | _____ |
| WI07 | Inspect hull and deck openings. <ul style="list-style-type: none"> • Dogs, gaskets and knife edges maintained as previously described for watertight doors, on any hull or deck openings • Cargo hatches structurally sound and watertight; hatches | _____ | _____ |

BI Tasks

| <u>Task Number</u> | <u>OJT Task</u> | <u>Date Completed</u> | <u>Verifying Officer</u> |
|------------------------|---|---------------------------|------------------------------|
| | <p>observed in secured position to verify</p> <ul style="list-style-type: none"> Sideports and Ro-Ro Ramps, if applicable, structurally sound and watertight | | |
| WI09 | <p>Inspect port light covers.</p> <ul style="list-style-type: none"> Port lights at the main deck level have a cover installed Dogs free on each shutter Shutters restricted in their movement from stowed-to-closed position | _____ | _____ |
| WR01 | <p>Evaluate welding repair proposal.</p> <ul style="list-style-type: none"> Plan or sketch submitted with bill of materials Configuration of repair acceptable Material specification same as existing or equivalent Method of joining acceptable | _____ | _____ |
| WR02 | <p>Complete initial visual inspection of weld repair.</p> <ul style="list-style-type: none"> Examine fit up in accordance with approved weld procedures Examine joint preparation in accordance with approved weld procedures Verify materials (base, filler, gas) in accordance with approved weld procedures Verify proper preheat temperature/time in accordance with approved weld procedures Evaluate weather conditions Check welding equipment in accordance with approved weld procedures | _____ | _____ |
| WR03 | <p>Complete intermediate visual inspection of weld repair.</p> <ul style="list-style-type: none"> Check back gouging for full penetration weld Check proper cleaning between weld passes Check interpass temperatures in accordance with approved procedures Verify that proper weld sequencing is followed Evaluate weather conditions | _____ | _____ |
| WR04 | <p>Complete final visual inspection of weld repair.</p> <ul style="list-style-type: none"> Perform dry search to ensure welding complete and followed weld details Perform surface inspection of welds for defects Verify proper postheat temperature/time in accordance with approved weld procedures | _____ | _____ |
| WR05 | <p>Witness pressure testing of welded repairs.</p> <ul style="list-style-type: none"> Witness hose testing Witness air testing | _____ | _____ |

BI Tasks

| <u>Task</u> <u>Number</u> | <u>OJT</u> <u>Task</u> | <u>Date</u> <u>Completed</u> | <u>Verifying</u> <u>Officer</u> |
|------------------------------|---------------------------|---------------------------------|------------------------------------|
|------------------------------|---------------------------|---------------------------------|------------------------------------|

- Witness hydrostatic testing

This image shows a full page of blank, lined paper. It features approximately 28 horizontal blue or grey lines spaced evenly apart, typical of notebook paper. The lines extend across the entire width of the page, leaving small margins at the top and bottom. There are no vertical lines, text, or other markings on the page.

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This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal blue or grey lines across the entire width of the page, typical of notebook paper. There are no margins, text, or other markings present.